NIUBIKE ELECTRIC BICYCLES

FOR THE PLEASURE OF CYCLING

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NIUBIKE EEV - ELECTRIC ONLY IPAS FOR SCHOOL RACING PROJECTS

Niubike Integrated Power Assist System (IPAS) offers customised design and fitting to suit each individual racing purpose. The Standard EEV - Electric only IPAS offers electricity regeneration capability. Its components are shown below, fitted on Greenspeed GT1 without fairing as an example.

2 Controller

4 Brake lever with cut-out switch

5 Grin cycle analyst with feedback potentiometer

6 Half twist throttle

1. Hub geared motor wheel
2. 20Amp controller
3. Battery box fitted on trike frame
4. Brake lever with cut-out switch
5. Grin cycle analyst with feedback potentiometer
6. Half twist throttle
7. Speed sensor

STANDARD EEV - ELECTRIC ONLY WITH REGEN BRAKING & TRACTION CONTROL

Motor	36 Volt BLDC hub geared regen motor, rated power 500 Watts, with high RPM for racing purpose
Wheel Size	20 to 26 inch as required
Controller	36 Volt 20Amps 8 wire for hall effect motors
eBike Computer	Programmable Grin cycle analyst CA-SA V3 with feedback potentiometer for on the fly max current setting
Activation	Half twist ORO throttle
Charger	36Volt 2Amp standard, higher capacity options available for racing condition
Battery	Lithium Iron 36Volt 15Ah (approx. 4kg), other options available
Weight	Total additional weight added to a trike by the kit is approx. 8kg
Braking:	Brake lever with cut-out switch for regenerative braking activation

Battery Requirement Guide

The current RACV EB rules allow 30Kg of Lithium Batteries and that would equate to about 7 x 36V15 Ah Batteries. We recommend having at least 3 batteries, one on vehicle, one on standby and one on charge. Due to restrictions on charging batteries we recommend a 12 Amp charger for the 36V15 Amp Hour Batteries. Swapping the batteries at 10 Ah discharge allows time for recharging. This way the batteries are performing at their higher energy level.

In practice using a Wattmeter can help determine actual power consumption per hour to work out change over intervals.

Battery and charging rules are set by the various racing authorities and often change so please discuss these with us.